

Attorney Docket No. 1454.1082

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:

Wolfgang ZIRWAS

Application No.:

Group Art Unit: (unassigned)

Filed: (concurrently)

Examiner: (unassigned)

For: METHOD, USE OF SAID METHOD AND RECEIVER SYSTEM FOR RECEIVING  
MULTI-CARRIER SIGNALS PRESENTING SEVERAL FREQUENCY-DISCRETE  
SUBCARRIERS

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure provisions of 37 CFR §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ Form PTO-1449.
- 1b. ☒ Copies of IDS citations.
- 1c. ☐ An English language copy of search report(s) from a counterpart foreign application or a PCT International Search Report.
- 1d. ☐ English language translation (complete or relevant portion(s)) attached to each non-English language publication.
- 1e. ☐ Explanations of Relevancy of References (ATTACHMENT 1(e), hereto) for providing a concise explanation of each non-English publication.

2. ☒ In accordance with 37 CFR §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is

(Check appropriate Items 2a, 2b, 2c and/or 2d)

- 2a. ☐ satisfied because all non-English language publications were cited on the enclosed "English-language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP 609, Minimum Requirements for an Information Disclosure Statement, Part A(3): Concise Explanation of Relevance, pp. 600-100 to 600-101, Rev. 1, Feb. 2000.)
- 2b. ☐ set forth in the application.

- 2c. ☐ satisfied because an English language translation (complete or relevant portion(s)) is attached to each non-English language publication.
- 2d. ☒ enclosed as Attachment 1(e), hereto.
3. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than search report(s) from a counterpart foreign application or a PCT International Search Report, if submitted herewith). 37 CFR §§1.97(g) and (h).

Respectfully submitted,

STAAS & HALSEY LLP

Dated: 10/1/01  
700 Eleventh Street, N.W., Suite 500  
Washington, D.C. 20001  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501

By: Richard A. Gollhofer  
Richard A. Gollhofer  
Registration No. 31,106

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY DOCKET NO. 1454.1082	APPLICATION NO.
LIST OF REFERENCES CITED BY APPLICANT  (Use several sheets if necessary)		FIRST NAMED INVENTOR Wolfgang ZIRWAS	
		FILING DATE	GROUP ART UNIT

### U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA	5,416,767	05/16/95	Koppelaar et al.			
	AB						
	AC						
	AD						
	AE						
	AF						

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO	
	AG	933 903	08/04/99	Europe				
	AH							

### OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

	AI	P. Robertson, "Analysis of the Effects of Phase-Noise in Orthogonal Frequency Division Multiplex (OFDM) Systems", February 1995, pp. 1652-1657
	AJ	Y. Zhao, "Sensitivity to Doppler Shift and Carrier Frequency Errors in OFDM Systems -- The Consequences and Solutions", May 1995, pp. 1564-1568
	AK	J. Armstrong, "Analysis of New and Existing Methods of Reducing Inter-carrier Interference Due to Carrier Frequency Offset in OFDM", vol. 47, No. 3, March 1999, pp. 365-369
	AL	Technologie "Drahtlos zum Freizeichen"
	AM	Mitteilung an die TU Braunschweig, Jahrgang XXXI, Braunschweig 1/1996, p. 46

EXAMINER	DATE CONSIDERED
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	

09/937766

JCUS Rec'd PCT/PTO 01 OCT 2001

## ATTACHMENT 1(E)

<b>EXPLANATIONS OF RELEVANCY OF REFERENCES</b>	ATTORNEY DOCKET NO. 1454.1082	APPLICATION NO.
	FIRST NAMED INVENTOR Wolfgang ZIRWAS	
	FILING DATE	GROUP ART UNIT

The relevancy of References AL and AM which are in German, are discussed in the Description of the Related Art section of the application.